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Emergency Department Mental Health Tele-video Pilot

Joanne Sue Richie

St. Catherine University

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EMERGENCY DEPARTMENT MENTAL HEALTH TELE-VIDEO PILOT

DNP Project
Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice (DNP)

St. Catherine University
St. Paul, Minnesota

Joanne Sue Richie

May 2018

ST. CATHERINE UNIVERSITY
ST. PAUL, MINNESOTA

This is to certify that I have examined this
Doctor of Nursing Practice DNP project
written by

Joanne Sue Richie

and have found that it is complete and satisfactory in all respects,
and that any and all revisions required by
the final examining committee have been made.

Graduate Program Faculty

Dr. Susan Hageness

Date

DEPARTMENT OF NURSING

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Dedication

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Abstract

The challenge of providing behavioral health resources in rural hospital emergency departments is significant. Lack of access results in mental health patients facing delays in receiving an assessment, diagnosis, intervention, referral, and/or treatment plan to provide quality care and stabilization. Tele-video psychiatry has been useful in providing remote psychiatric services to rural areas that otherwise would not have access to such services. Qualified and licensed mental health professionals can assess and treat patients in another location using video-conferencing technology. This Doctor of Nursing Practice (DNP) project explored the implementation of telehealth technology in one western Wisconsin Emergency Department (ED) to improve the timeliness of treatment provided to mental health patients, and to also provide ED staff with a necessary tool to enhance treatment of behavioral health patients. Current processes were defined in addition to the Emergency Department staff being surveyed, to determine if there was a need for additional ED mental healthcare services. The qualitative results of the pre-implementation survey and data collection indicated that the use of tele-video psychiatry would be a useful tool, valued by staff, and contribute to improvements in the provision of quality mental health care for patients seeking treatment in the Emergency Department.

EMERGENCY DEPARTMENT MENTAL HEALTH TELE-VIDEO PILOT

In the United States (U.S.), rural hospitals are routinely confronted with the challenge of providing cost-effective, emergency psychiatric care (Yellowless, Burke, Marks, Hilty, & Shore, 2008). In one western Wisconsin city, this challenge has resulted in lengthy ED visits, discharge of patients without a mental health assessment by a trained mental health professional, and/or patients being transported to another facility to receive a mental health assessment, diagnosis, intervention, and treatment plan. In Wisconsin, each County is required to provide emergency crisis services for their constituents (WI State Legislature, Department of Health Services [DHS] 34, 2010). However, in this western Wisconsin county, the crisis service personnel (known as “Access” workers or staff) are not licensed or trained to assess, diagnose, or develop a treatment plan for the mental health patient. Instead, these Access workers use an algorithm to determine patient placement and decide if the patient should be sent to another facility for an evaluation or be discharged from the ED with follow-up resources for an outpatient evaluation on the next business day.

The lack of ED mental health services in this western Wisconsin county was the foundation for this DNP project. Adequate mental health care should be available to all patient populations regardless of where they present for care. With the use of tele-video, the mental health patient would not have to travel to an ED with mental health services, but rather the mental health services (via tele-video) would come to them. The research provided by this study is intended to verify that tele-video is an efficacious tool for mental health patients presenting to the ED in crisis.

Background

In 2016, it was estimated that 18.6% of the adult U.S. population had a diagnosable mental illness. In the same year, Wisconsin reported that 18.3% of the state's adult residents had a mental illness (WI DHS, 2016). Access to mental health care can improve the lives of the nearly one-in-five adults who suffer from mental illness, and reduce their risk of suicide, legal issues, employment issues, substance abuse, and/or further mental and physical health problems. However, the majority of people with mental illness fail to receive treatment. In 2018, the National Alliance for Mental Illness (NAMI) reported that nearly 60% of adults with a mental illness did not receive treatment in the previous year. It is important to understand what prevents those in need of mental health services from accessing these services. Two of the barriers to mental health care include the shortage of mental health professionals and the lack of availability of mental health services.

The United States is facing an overall shortage of doctors, and of that shortage, the scarcity of mental health professionals is more significant than any other type of provider. To demonstrate this increasing shortage, in 2012 it was estimated that 90.6 million Americans were living in mental health professional shortage areas compared to 56.8 million Americans living in primary care health professional shortage areas. By 2016, the estimate of Americans living in mental health professional shortage areas had climbed by 17% to 106 million, while the estimate of Americans living in primary care shortage areas only rose 14% to 65 million. (Health Resources and Services Administration [HRSA], 2018).

According to County Health Rankings and Roadmaps (2018), top state performers in the United States in 2017 had a population to mental health provider ratio of 330:1, whereas the ratio in Wisconsin was 560:1. In the western Wisconsin county that was the focus of this DNP project, the ratio of the population to mental health providers was 910:1 in 2017. As a result, residents in this Wisconsin county may have longer wait times to obtain mental health services and/or may need to seek treatment in the nearest metropolitan area in the neighboring state of Minnesota in times of crisis.

According to research by Larkin et al. (2009), mental health patients represent the fastest growing group of patients presenting to emergency departments in the U.S. According to Letvak and Rhew (2015), there are only 146 emergency departments that provide psychiatric services, which constitutes less than 4%, of the 4,000 EDs in the U.S. The lack of access to psychiatric services in the other 96% of the nation's hospital EDs can cause a delay in providing treatment to the mentally ill patient (Narasimhan et al., 2015). This problem is particularly acute in rural hospital emergency departments, which face the challenge of providing mental health care to their patients when the cost of providing on-site mental health care is high and the quantity of trained and licensed mental health clinicians are low. While emergency department staff are well-versed in physical care for patients, they are not always equipped to manage a mental health patient in crisis (Zun, 2016). Such is the case in the western Wisconsin hospital studied for this DNP project, where the ED staff are prepared for physical emergencies but lack a care delivery model necessary to provide care during a mental health emergency. This DNP project first explored the feasibility of developing such a model using tele-video technology to provide access to a mental health provider. After examining the data and feasibility, a tele-video pilot

project was developed for patients seeking mental health care in one western Wisconsin Emergency Department.

Problem Statement

This DNP project addressed the need to provide a care delivery system to support access to a professionally trained mental health provider for a timely mental health assessment, diagnosis, and treatment plan for behavioral patients in one small western Wisconsin emergency department.

Currently, when a mental health patient in crisis presents to this ED there are two possible scenarios that can occur. In the first scenario, the patient has private insurance and, with the ED providers' referral, can opt to be transported to a Minnesota hospital with mental health services. In the second scenario, the patient has no health insurance or is on Medicaid. In this case, the decision to admit the patient to a mental health hospital in Minnesota is determined by an unlicensed Access worker for the western Wisconsin county. The conflict of having a county employee assess the patient is twofold. The first conflict is that the Access worker has an obligation to save the county money. Transporting the patient to Minnesota for services results in a financial burden to the county. The second conflict is that the person presenting with mental illness is not getting an assessment by a licensed professional who can recommend appropriate mental health care. The county-employed Access worker is not a licensed therapist or a social worker, and merely has knowledge of the county agencies and services; and therefore, the Access worker can only offer the patient resources to contact on the next business day. The

emergency department staff and the patient both need a suitable resource to direct the patient to appropriate, and quite possibly, immediate mental health care. Without an ED mental health resource, the patient experiences either a delay in mental health care or is discharged with no mental health care.

Needs Assessment

According to Egan-Robertson (2013), this western Wisconsin county is projected to experience the highest population growth in the State -- an increase of 41% -- by the year 2040. Additionally, this western Wisconsin city is the largest municipality in the county and is predicted to be the 12th fastest growing city in the State. By 2040, the city's population is projected to increase by 7,600, or 58% (Egan-Robertson, 2013). With the increasing population comes an increased need for resources to accommodate the anticipated need for mental health services and to achieve an adequate mental health provider to population ratio of 412:1 (County Health Rankings & Roadmaps, 2018).

Implementation of the tele-video service in the ED will impact multiple hospital staff such as administration, coding, billing, IT, marketing, scheduling/registration, ED staff, and even the hospital board of directors and hospital foundation. Outside of the hospital, the tele-video project will provide a mental health resource to the community, law enforcement, and other institutions, including the State's Department of Health Services (DHS). All stakeholders need to be considered and respected in the planning and implementation of this pilot program. Their opinion and feedback will be invaluable in helping streamline and fine-tune the project to promote ownership and collaboration for a successful implementation.

There are four hospitals located in this western Wisconsin county; however, none of the hospitals have mental health services other than the previously noted crisis referral service. The closest access for a patient in need of acute mental health services is the metropolitan area across the Wisconsin border, approximately 20 miles into Minnesota. To prevent the risk of suicide or other mental health crises, mental health care needs to be accessible and immediate. It is crucial for a hospital ED to have a trained and licensed service provider who can assess the mentally ill patient and direct them to adequate and timely care. The use of tele-video technology offers opportunities for expanding the number of patients who receive an immediate assessment to mental health care in western Wisconsin.

Significance and Contribution to the Literature

With the prevalence of mental illness and the shortage of psychiatric professionals and services, it can be a challenge for hospital emergency departments to provide a service that meets the needs of their patients with mental health concerns. Hospital administrators are faced with the task of finding a mental health service that is not only cost-effective but also ensures quality of care. Tele-video technology can allow hospital emergency departments to provide mental health specialty care that was formerly absent. Patients receive a thorough mental health evaluation by a licensed clinician resulting in an assessment, diagnosis, possible intervention, and treatment plan. Therefore, an additional enhancement of tele-video is improved patient experience. The tele-video clinician can be available 24 hours-a-day and seven-days-a-week, which can reduce wait times and an overall reduction in time spent in the ED. Without tele-video technology, wait times can be lengthy, as hospital ED staff need to arrange and provide transportation for the patient to facilities that can meet their care needs. Besides reducing the ED

length of stay, there are other cost savings, such as reducing unnecessary admissions and transport costs to a facility that provides these services.

Not only does the mental health tele-video project provide an opportunity to address behavioral health patients at this western Wisconsin hospital, once the program is established, the service has the capability to expand to other hospitals in western Wisconsin with one hospital serving as the hub of the program for seven other hospitals in three adjacent counties. This comprehensive, designated, specialized service will be provided through private/public collaboration which will also streamline and better manage crisis emergency detention cases (State of WI Chapter 51.15, 2017; State of WI DHS 34, 2010).

Significance to the Nursing Profession

The significance of this DNP project to the nursing profession is substantial. Mental health assessments via tele-video technology not only provides a new care delivery model for the ED nurses caring for the mentally ill patient, but it also provides a resource to address a healthcare need that is presently not being met. Emergency department Registered Nurses (RN) and Medical Doctors (MD) provide direct care to mental health patients who present to the ED in crisis. When trained and licensed mental health care providers are not available, nurses and physicians with sometimes no experience in mental health assessment are asked to fill the void. These emergency department nurses and physicians are not experts in mental health assessment, diagnosis, intervention, or treatment, nor are they experts in determining what mental health resources the patient will need. Having a mental health tele-video service allows almost immediate face-to-face contact between the mental health professional and the patient, their family, and other concerned persons. One licensed mental health professional can provide services over a large territory and multiple sites through tele-video technology. Additionally, the

ED doctors and nurses providing the hands-on care will receive an assessment of the mental health patient, in a timely manner, resulting in more immediate and appropriate mental health treatment.

PICO Question

Does the use of tele-video psychiatry for mental health patients expedite access to mental health assessment and treatment in the Emergency Department?

Project Goals and Objectives

The vision of this study was to ultimately improve the mental health care delivery system in one western Wisconsin ED using tele-video technology, (also called telehealth, telemedicine, or telepsychiatry). The use of a tele-video service in the ED is expected to accomplish these goals: 1) provide mental health patients a timelier assessment and access to a licensed mental health clinician, 2) eliminate the need for patients to be transported or travel to another facility for mental health services, and, 3) offer mental health patients an immediate assessment, diagnosis, and care plan prior to being discharged from the ED.

Theoretical Framework

The Theory of Transpersonal Human Caring by Jean Watson provides the theoretical framework for this mental health tele-video DNP project. In the Transpersonal Human Caring theory, the nurse views the patient as a whole and complete person, regardless of their illness or disease. There are ten provisions noted within this theory (or Caritas factors), two of which are pertinent to the nurse's interaction with the mental health patient. The eighth Caritas factor pertains to the support of a protective and/or corrective mental, physical, socio-cultural, and spiritual environment. This Caritas factor is divided into external and internal variables which are

interdependent, and the nurse manipulates these variables in order to provide protection and support for the patient's mental and physical well-being. Provision of this eighth Caritas factor requires the nurse to provide comfort, privacy, and safety to the mental health patient. The ninth Caritas factor describes how the nurse lends assistance with basic human needs to align the mind-body-spirit of the patient. Each need is equally important for quality nursing care and to promote optimal health. All the patient's needs deserve to be valued and attended to (Parker & Smith, 2010). Caritas factor nine explains that when a nurse assists patients with delivery of basic care needs and/or administers "human care essentials", the nurse also experiences gratification in provision of this care.

Tele-video technology equips the nurse with the essential expert care necessary for the mentally ill patient to begin healing at all levels of the continuum (Parker & Smith, 2010). Additionally, Watson's theory states that people learn from each other how to be human by identifying themselves with others (Parker & Smith, 2010). The Theory of Transpersonal Human Caring suggests nurses recognize themselves in others by finding their own internal dilemma. Recognition of the similarities with others promotes a common humanity and avoids reducing the moral status of the other (Parker & Smith, 2010). Watson's theory reminds us that nursing processes are relational and interconnected, promote a healing environment, and can encourage seeking out new patterns of care delivery to preserve the wholeness of human existence—all crucial components to mental health care.

Literature Review

Search Process and Organization

Tele-video and its various dimensions and possible uses have been studied extensively by researchers. The literature search of relevant works was performed from March 2017 to April 2017. Evidence utilized to provide scholarly data for the project included empirically-based journal and full-text articles. Additionally, the sources were research or evidence-based, practice-based, and peer-reviewed. Research evidence was gleaned from quasi-experimental, meta-analysis, and cohort studies. Non-research evidence included a case study report and a quality improvement (QI) study.

To begin the search, the disciplines of psychology and nursing were used. The subject of nursing yielded four more databases than psychology, therefore nursing became the discipline of choice. A systematic search of published literature was then performed using CINAHL Plus, Cochrane Library, Health Source, MEDLINE via EBSCO, MEDLINE via PubMed, and PsycINFO databases. The following keywords were used to find articles: *telepsychiatry or tele-video, and emergency department or emergency room*. Terms contained within the search included: *mental illness, mental health, remote, and/or assessment*. Original articles and literature reviews were published from January 2007 to December 2016 in English.

In the elimination process, excluded sources were those published prior to 2007, articles that focused on tele-video programs in the emergency department for diagnoses other than mental health, telepsychiatry with the purpose of delivering therapy, or research that did not relate to assessing mental health patients in the emergency department via tele-video. The first extensive literature review in CINAHL resulted in 32,799 articles on telepsychiatry or tele-video *and* emergency room or emergency department. The literature search was modified to include the terms telepsychiatry and emergency department or emergency room with a screening of the

different databases in the following order CINAHL 2,521, Cochrane 17, Health Source 3,939, Medline via EBSCO 7,486, Medline via PubMed 64, and PsycINFO 22.

Because the yield of research articles was high, the search was modified to all but the Cochrane and Medline via PubMed databases to produce more specific data. By adding a filter to limit the studies to “adult” the search totals were significantly reduced to an acceptable level of CINAHL 1,709, Health Source 423, Medline via EBSCO 3,837, and PsycINFO 8. The final number of articles considered was comprised of 22 reviews and five original articles. After examination of the articles, a synthesis of the evidence was conducted using the John Hopkins Research Evidence Appraisal tool and the Clinical Appraisal Skills Programme (CASP).

Synthesis of Literature

The John Hopkins Research Appraisal tool and CASP generated five studies that fell into the level two category, one study was rated as a level three category, and two articles which were placed in the level five group. A level two category is described as having some degree of investigator control, some manipulation of an independent variable but lacks random assignment to groups, and may or may not have a control group (John Hopkins, 2017). For this DNP project, all eight of the categories were utilized. Additionally, there are three categories of the quality rating. An “A” quality rating designates a high-quality study, “B” represents a good quality study, and “C” denotes a low quality or flawed study (John Hopkins, 2017). All eight studies fell into the A or B quality range, which was an expectation of the data for this project. After synthesizing the research, it was discovered that the eight studies used in this project had similar conclusions. Those suggested that telepsychiatry with video-conferencing is efficient and has the capacity to provide remote psychiatric care for rural emergency departments lacking psychiatric amenities. In addition, it was discovered that there is a significant need to develop

evidence-based strategies to provide assessment, diagnosis, and a treatment plan for the mentally ill patients presenting to emergency departments (Letvak & Rhew, 2015).

Narasimhan et al. (2015) concluded that telepsychiatry utilized in emergency departments has great promise for improving linkage with outpatient mental health services. Similarly, Shore, Hilty, and Yellowless (2007) concluded that telepsychiatry can improve the quality and quantity of mental health services for rural, remote, and isolated populations. They expressed the finding that telepsychiatry has great potential for emergency departments to manage psychiatric emergencies both safely and efficiently.

Some of the studies cited uses for telepsychiatry in addition to praising its use in the emergency department. Shore (2013) predicted that in the upcoming years, healthcare will see a continued expansion and integration of telepsychiatry not only in emergency departments but in clinical practices and in the homes of patients living in remote areas. Letvak and Rhew (2015) recommended the use of telepsychiatry in the emergency department both for safety and to provide these patients a high quality of care. Yellowless, Burke, Marks, Hilty, and Shore (2008) professed that telepsychiatry has the potential to provide much-needed care in rural areas and will improve access to psychiatric care.

All in all, telepsychiatry was recognized for its potential to treat the right patient with the right service at the right time (Narasimhan et al., 2015). The results of the Trondsen, Bolle, Stensland, and Tjora (2014) study suggested that telepsychiatry may improve the confidence of the mental health care providers, nurses, and patients in challenging psychiatric emergencies. Unlike telephone triage, telepsychiatry allows the mental health provider and the patient to hear and see each other at the same time. This permits all participants to take an active role in assessment and the decision-making process through face-to-face communication. Seidel and

Kilgus (2014) stated, after their comparison study between telepsychiatry and face-to-face assessments, that the results support the use of telepsychiatry in the emergency room to determine the need for admission to inpatient care. Lastly, Saurman, Lyle, Kirby, and Roberts (2014) presented a small study that emphasized telepsychiatry in relation to assessment efficiency and providing a 24 hours-a-day and seven-days-a-week service in the emergency department. They felt a wider application of telepsychiatry could be used such as expanding this tool into therapy and treatment via video-conferencing.

After examination of the literature, a synthesis of the evidence was conducted. Based on the data, it was discovered that there is a significant need to develop evidence-based strategies that provide assessment and placement for mentally ill patients presenting to the emergency department (Letvak & Rhew, 2015). Tele-video with video-conferencing is efficient and has the capacity to do just that, particularly in emergency departments that are unable to provide onsite face-to-face mental health assessments (Saurman, Lyle, Kirby, & Roberts, 2014).

Telepsychiatry offers a rapid mental health care delivery system that can provide timely assessments and reduce inpatient admissions for patients with mental illness (Narasimhan et al., 2015; Seidel & Kilgus, 2014). Mental health tele-video can reduce pressure on the ill-equipped ED staff that are not trained in assessing, diagnosing, and treating mentally ill patients (Yellowless, Burke, Marks, Hilty, & Shore, 2008). Research also suggested that having telepsychiatry in the emergency department could improve confidence in the staff, patients, and mental health clinicians, by providing a new tool to assess the mentally ill patient in crises which was difficult to provide in the past (Trondsen, Bolle, Stensland, & Tjora, 2014). Shore, Hilty and Yellowless (2007) stated tele-video for mental health assessment will improve both quality and quantity of mental health services for the rural or remote populations. Overall, it appears the

future for telepsychiatry looks promising. It is efficient, readily available, and offers 24 hours-a-day and seven-days-a-week access to psychiatric care (Shore, 2013).

The literature regarding the use of tele-video for remote and rural areas, where there are shortages of mental health providers and services, clearly align with the development and success of providing mental health tele-video service for patients in rural Wisconsin. Additionally, mental health tele-video assessment can offer a rapid mental health delivery system that can provide timely assessments and inpatient admission only if necessary. As suggested by Trondsen, Bolle, Stensland, and Tjora (2014), ED staff felt confident and self-assured knowing that challenging mental health patients presenting to the ED had a resource that could be utilized, which included an assessment, diagnosis, intervention, and a treatment plan.

Project Implementation

Telehealth includes many different components; however, for this DNP project pilot, the component to be utilized is video conferencing. Video conferencing allows telecommunication (audio and video) between two different sites to promote long-distance clinical health care. The purpose of using tele-video in this western Wisconsin Emergency Department would be to build an internal behavioral health resource to provide acute behavioral health services. These services would include triage, assessment, brief intervention, diagnosis, development and/or initiation of a treatment plan, and when needed, facilitating a Wisconsin Chapter 51.15 emergency detention process. Services will be provided by a trained, licensed, mental health professional. This will decrease the time it takes for a patient in crisis to receive crucial mental health services from a trained professional.

Project Design

The project design for the mental health tele-video pilot is a quality improvement design. At the beginning of the project, a gap in care was identified. This gap was the mentally ill patient in crisis presenting to the ED where there was a lack of mental health resources. This led to a literature review to identify what constituted evidence-based care in the ED for a mentally ill patient. After data was gathered and analyzed, a quality improvement strategy and implementation framework was established.

The Plan-Do-Study-Act (PDSA) continuous improvement cycle will provide the structure needed to systematically review the performance of the program and adjust as needed. After implementation, chart audits will be employed for usage (quantitative) and patient surveys for patient satisfaction (qualitative) rates. Results of PDSA and audits will be used to analyze the performance of the program and to bring about improvements as needed. In the first year of the project, all components of the service will be monitored closely. The goal is to provide quarterly and yearly reports to stakeholders once the program has stabilized.

Project Methods and Data Collection

The PDSA cycle will be utilized to evaluate the impact of implementing the mental health tele-video service:

- The “Plan” portion of the cycle will be to develop a new care delivery model for mental health patients in the ED using tele-video.
- The “Do” portion will be the implementation of the tele-video services in the ED, and will put into service all the components that were addressed in the planning cycle.

- The “Study” and “Act” portions will include observing and auditing the new process after implementation and make adjustments as needed.

It is important to develop a system that will support the use of the tele-video services. Therefore, prior to implementation, several inquiries were done to determine the feasibility of developing a mental health tele-video program. To begin, an assessment was performed to determine what mental health care resources were currently available in the hospital, as well as what resources were needed.

Pre-Implementation Phase (Plan)

Prior to tele-video implementation, ED staff participated in an anonymous survey to provide primary, qualitative data regarding the current management of mental health patients. The survey asked the participants to identify barriers and provide care delivery options (see Appendix A). Results of the survey described the current process as either the ED provider using his or her best judgment for patient disposition, utilizing the Access program worker for outpatient resources, or a “least restrictive” placement determined by law enforcement through State Law Chapter 51.15. Wisconsin law also requires a provision of emergency mental health services to patients without insurance or on Medicare (Chapter 34). To provide that emergency crisis service, a contract with an outside agency is used by the county. Staff at this agency are not trained or licensed to provide mental health assessment; rather, they are trained/hired to suggest resources or placement for the patient(s). This means for the uninsured or Medicaid patients, placement was not always the decision of the ED provider, but rather the Access worker and sometimes law enforcement. Law enforcement is involved in placement through requirements described in State Law Chapter 51.15. Chapter 51.15 is an emergency detention process in which law enforcement determines the setting of care for patients who they feel cannot be safely

discharged to the community (WI State Legislature, 2017). However, the survey showed that when a patient presented to the ED and a mental health assessment was not available, it was questionable to the ED staff whether the Access worker and law enforcement were able to make the correct decision as to where the patient should be placed due to their lack of mental health training or expertise. It was reported in the pre-survey that, at times, the decision not to send the patient on for further evaluation or treatment by the Access worker was against the wishes of the ED staff, which resulted in staff feeling uneasy about the patient's safety and questioning whether an adequate mental health assessment had been conducted. Staff suggested that having a trained mental health clinician to evaluate the patient would be helpful so that ED providers can then make educated decisions about the next steps for that patient.

Other considerations that were evaluated in the planning stage included:

- patient volume, including past, present, and future;
- pilot expenses, both start-up, and on-going;
- funding/payment through grants, donations, and insurance coverage;
- state licensing/credentialing of staff, hospital, and county;
- workflows, including internal, intradepartmental, and external;
- information systems & technology (IS&T) equipment, support, and maintenance;
- pre-implementation education for hospital staff; and
- a communication plan for preparing for the change which includes various modes of communication and the stakeholders in need of this information.

Implementation Phase (Do)

Consultation and feedback. Feedback is not limited to this stage of the process, but for the purposes of implementation, feedback will be obtained on the same day of “go-live”. The

focus will be on the dependability of the intervention and response to feedback from the ED staff and the mental health clinician using the telehealth service.

Implementation monitoring will be done within the month after the implementation date. Within that first month, the first data mining will be completed to determine the mental health patient rate and to what degree the ED was using the mental health tele-video service. If adherence becomes a problem in the future, then the users will be consulted to see if there is a lack of knowledge, scripting issues, or other barriers to using tele-video technology. If competence is an issue, in-services will be made available to provide hands-on training. Users will then provide a return demonstration on the use of telepsychiatry.

Communication plan during implementation. Constant reassurance and educational moments will be conducted throughout the implementation phase to ensure staff are knowledgeable and comfortable with telepsychiatry. This approach will continue beyond the end of the implementation. The feedback loop will be crucial so all team members can clarify and improve the intervention.

Ethical Considerations of Social Justice

The University's Institutional Review Board (IRB) application was completed when the decision was made to implement the mental health tele-video pilot. The western Wisconsin hospital, however, did not require an IRB to be completed. The catalysts behind the pilot were County Department of Health Service (DHS) leaders, county law enforcement officers, and a representative from the hospital who all lobbied at the State capital for assistance in the treatment/care of the mentally ill people in their county. The state senator for the district then responded, by contacting the hospital representative requesting a proposal for what services the hospital believed were needed in the western Wisconsin county. The proposal sent to the senator

recommended the use of tele-video technology in the hospital with a request for funds. This bill (Wisconsin Health Services Omnibus Motion #256 section 30) was then enacted into law in October of 2017. The legislation provides a one-time funding grant of \$250,000 to be used for a hospital-based behavior health crisis management and video conferencing system (WI State Legislature, 2018). Additional smaller grants were also secured for the initial start-up of the program.

Many people with mental illness have been blamed for their condition, called names, had their symptoms referred to as “a phase” or have been illegally discriminated against (National Alliance for Mental Illness [NAMI], 2018). Besides the person feeling ashamed, the stigma can cause discrimination in care from healthcare workers, both of which may prevent a mentally ill patient from seeking healthcare. Additionally, the stigma erodes the confidence that mental health disorders are real, treatable health conditions (NAMI, 2018). NAMI (2018) also reports that one in five adults in America will experience mental illness in a given year. Furthermore, one in four people will develop a mental illness in their lifetime (NAMI, 2018). When you combine discrimination and stigma with the lack of mental health services, one can conclude that this patient population is in dire need of help.

Evaluation (Study/Act)

Analysis Methods

There are several measures of analysis that will be utilized to monitor the success or possible downfalls of the pilot. They include:

- on-going feedback from staff (PDSA cycle);
- monthly time study to ensure the tele-video mental health patient assessment starts within 30 minutes of ED to mental health clinician call;

- monthly audits to monitor patient transport volume to other mental hospital ED for mental health assessment;
- monthly audits to determine the usage of mental health assessment through tele-video technology;
- monitoring monthly ED patient satisfaction scores as reported through the on-going hospital's Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey; and
- bi-annual financial performance surveillance through the hospital business office on reimbursement and revenue.

Presentation of Results.

After implementation of tele-video, the ED staff will be asked to provide feedback regarding the new care delivery approach for mental health patients. This feedback strategy will contribute to building a sound framework for optimizing tele-video technology and its effects on the delivery of mental health care in the ED.

The pre-survey results indicated that all participants had been involved with a patient in need of mental health services in the ED at the hospital. All except one (undecided) indicated that they felt the care was inadequate. The pre-survey also yielded that nine of the ten respondents felt that having a tele-video mental health service or access to a trained mental health professional in the ED would be useful for the mentally ill patient in distress. The tenth pre-survey respondent was undecided. Lastly, the pre-survey respondents mentioned additional concerns such as: (i) the length of time it takes to care for mental health patients when a trained mental health provider is not available, (ii) staff feeling inadequately trained to care for mental

health patients, (iii) the lack of adequate resources, and (iv) the need for greater ED treatment options, including a full mental health assessment.

Interpretation of the Results

The interpretation of the literature aligns with the tele-video DNP pilot in that research results indicated that there was a lack of access to mental health services in the western Wisconsin County similar to the findings of a lack of access to mental health services in rural hospitals nationally. The pilot also aligns with the results of the ED staff survey in that ED staff felt mental health care without an assessment, diagnosis, and/or treatment plan by a trained mental health professional was inadequate. Additionally, staff added that the mental health tele-video technology prevents a patient from having to be transported to another hospital for an assessment which is time-consuming and costly. Lastly, the interpretation of the results is in alignment theoretically with the Transpersonal Human Caring Theory. Watson's theory emphasizes the need to support mental well-being, the provision of care necessary for healing, and encouraging the nurse to seek out new patterns of care (Parker & Smith, 2010).

Limitations of Project

The implementation of the ED tele-video service encountered a few constraints, one of which pertained to finance. A five-year Performa was completed and it was determined that after the first year, the tele-video program would lose money. The reason for the revenue loss is that reimbursement from many health insurance carriers for mental health tele-video services is lacking or does not adequately cover the cost of the service. That being said, there is pending legislation in many states with the intent to improve reimbursement (Center for Connected

Health Policy, 2018). In the case of this DNP project, several grants were secured to begin the project, but these were one-time grants. As such, additional grant money will need to be pursued moving forward.

Another constraint in the implementation of the pilot was that it required a significant amount of coordination with public systems including the County and the State for regulatory compliance. Although the partnerships provided a checks and balances system, it added additional implementation time due to license/certification applications and needing to continually communicate with all the partners before any changes were completed.

The availability of inpatient mental health beds presented another constraint. Once the patients had been assessed and it was determined inpatient treatment was necessary, mental health beds were scarce, so admission was delayed. Bastiampillai, Sharfstein, and Allison (2016) noted that in 2016 there were 22 psychiatric inpatient beds per 100,000 population. This compares to 240 inpatient beds per 100,000 population for general healthcare (Henry Kaiser Family Foundation, 2018). In this project area, lack of inpatient mental health beds means the patient would not only have to be transported to another hospital, but they may have to stay in an emergency department until a bed became available.

Additional limitations of the pilot project concerned licensing the county to use the hospital tele-video service, and credentialing of the Licensed Social Worker (LSCW) - both were unexpectedly lengthy and time-consuming processes. Regarding licensing, Wisconsin allows up to 120 days to return the applications; additionally, licensing between the states of Wisconsin and Minnesota is different, so therefore the program was not able to expand to hospitals in Minnesota that were within the same health care system.

The last limitation or barrier to be noted is that mental health patients may chose not to participate in the use of tele-video for their mental health assessment. Due to a patient's mental state of mind, he/she may be afraid or uncomfortable with the tele-video technology and the patient has the right to refuse.

Discussion/Conclusion

It appears the future of tele-video psychiatry is promising. The DNP mental health tele-video pilot study can benefit patients in other rural Emergency Departments by offering a timely mental health assessment and recommendation for treatment. Tele-video enables the trained mental healthcare worker to see, speak to, and evaluate each patient in real time without the patient having to leave the emergency room or be sent to another hospital for the sole purpose of a mental health assessment. Tele-video technology can also offer a 24 hours-a-day and seven-days-a-week service so that the emergent mental health crisis can be handled effectively, regardless of the time or place, and is only dependent upon access to a computer.

Recommendations

Currently, tele-video technology is not reimbursed by all insurance companies. This can result in a financial loss to the hospital ED. It is not uncommon for insurance companies to be slow in reimbursing for new technology until the service is proven to be efficacious and fiscally sound (Lakdawalla, Malani, & Reif, 2017). Therefore, it will be important to monitor the mental health tele-video service to verify that it does offer an efficient, cost-effective mental health assessment to rural and remote areas that have no other option in caring for the mentally ill in their ED. Additionally, if the pilot proves to be successful, the mental health tele-video

technology used in this western Wisconsin hospital can expand to include other remote areas also in need of emergent mental health care.

Future Implications

Locally, ongoing education will teach staff the tele-video process to help ensure sustainability. Assessments will be integrated into the ED workflow for assessing mental health patients presenting to the ED in crisis. Integration will be hard-wired into the electronic medical record (EMR) through a mental health “best practice alert”. However, changes can occur for other reasons such as added efficiencies or other unforeseen changes. Therefore, there will be a need for ongoing quality improvement processes.

If this DNP pilot study is efficacious, it can expand to cover other hospital emergency departments in western Wisconsin. Expanding the service, securing a commitment, and charging a fee through a contract from other hospital EDs could aid in assuring financial sustainability of the project. With its mobile capabilities, the service could also expand by dovetailing into outpatient mental health services throughout the counties. Follow-up assessments could be performed from a designated hospital hub to an outpatient facility. Tele-video could also be used by inpatients that have been admitted for medical reasons while also experiencing mental health issues. Patients could be assessed before being discharged from their inpatient medical bed. However, in the future, if tele-video does become a crucial component in caring for the mentally ill in the emergency department, it will be necessary to keep tele-video on the agenda of our lawmakers to procure maximum payment and sustainability of the service.

Tele-medicine is a rapidly evolving field, requiring flexibility, creativity, and collaboration with many other participants and stakeholders. Additionally, tele-video is “portable”, therefore, it has a lot of capabilities and can reach a vast amount of people.

Portability, although efficient, presents its own set of problems such as securing patient information and privacy. The growth of the tele-video provision can also present legal, technical, and political issues that need to be resolved if the tele-video service expands into neighboring counties and/or states. Regardless of these challenges, tele-video technology is a viable health care delivery option for treating the mentally ill patient presenting to a rural hospital ED.

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Appendix A



ST. CATHERINE
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**PRE-SURVEY: TELE-VIDEO ASSESSMENT FOR THE MENTALLY ILL PATIENT IN
CRISIS PRESENTING TO THE HUDSON HOSPITAL EMERGENCY DEPARTMENT
PILOT STUDY**

You are invited to participate in this survey because you work in Hudson Hospital Emergency Department. This study is being conducted by Doctor of Nursing Practice (DNP) student Joanne Richie, MSN, RN. The purpose of this survey is to determine if providing a tele-video, mental health assessment by a trained mental health professional in the Emergency Department will grant patients, in mental health crisis, more effective mental health care and a care plan prior to the patient being discharged.

This is a voluntary survey. It contains 5 questions and will take you approximately 5-15 minutes to complete. Your responses to this survey will be kept *anonymous* and results will be presented in a way that no one will be identifiable. If you decide to not participate, at any time, you may do so. You may also skip any item that you do not want to answer. A survey box will be provided in the Emergency Department breakroom to submit your completed survey. If you choose not to complete this survey, submit your blank survey to this same box.

If you have any questions about this project, please contact Joanne “Jo” Richie at jsrichie@comcast.net. By responding to items on this survey you are giving your consent to allow the researcher to use your responses for department planning, research, and educational purposes.

Please answer questions to the best of your knowledge and/or experience.

1. While working in the Hudson Hospital Emergency Department (ED) have you ever had a patient in need of mental health services
 - No
 - Yes, if so, what services did he/she receive?

-
2. Do you feel the mental health services the patient received in Hudson Hospital ED were adequate?
 - Undecided
 - No

- Yes,
Why or why not?
-
-

3. How do you feel Hudson Hospital Emergency Department could improve the care they give mental health patients presenting to the ED in Crisis?
- Provide an on-site, mental health trained professional
 - Provide access to mental health trained professional
 - Provide mental health education for all the staff
 - Other - please describe:
-
-
-

4. Do you feel that having a tele-video service with access to a trained mental health professional in the Emergency Department would be useful for the mental health patients in crisis?
- Undecided
 - No
 - Yes,
Why or why not?
-
-
-

5. Please give any insight, knowledge, experience, or any other information that may be important or useful towards enhancing the care of the mental health patient or implementing a mental health tele-video service in the ED.
-
-
-

Thank you for taking the time to complete this survey.

Appendix B



ST. CATHERINE
UNIVERSITY

**POST-SURVEY: TELE-VIDEO ASSESSMENT FOR THE MENTALLY ILL PATIENT IN
CRISIS PRESENTING TO THE HUDSON HOSPITAL EMERGENCY DEPARTMENT
PILOT STUDY**

You are invited to participate in this survey because you work in Hudson Hospital Emergency Department. This study is being conducted by Doctor of Nursing Practice (DNP) student Joanne Richie, MSN, RN. The purpose of this Doctor of Nursing (DNP) project is to determine if providing a tele-video, mental health resource in the emergency department will grant patients, in mental health crisis, a more timely and effective assessment by a trained mental health professional.

This is a voluntary survey. It contains 5 questions and will take you approximately 5-15 minutes to complete. Your responses to this survey will be kept *anonymous* and results will be presented in a way that no one will be identifiable. If you decide to not participate, at any time, you may do so. You may also skip any item that you do not want to answer. A survey box will be provided in the Emergency Department breakroom to submit your completed survey. If you choose not to complete this survey, submit your blank survey to this same box.

If you have any questions about this project, please contact Joanne “Jo” Richie at jsrichie@comcast.net. By responding to items on this survey you are giving your consent to allow the researcher to use your responses for department planning, research, and educational purposes.

Please answer questions to the best of your knowledge and/or experience.

1. Since the implementation of the tele-video service in the Hudson Hospital Emergency Department did you encounter or care for a patient in need of mental health services?
 - NA
 - No
 - Yes, what services did he/she receive?

-
2. Do you feel the mental health services the patient received were adequate?
 - Undecided
 - No

- Yes
Why or why not?

3. How do you feel the Hudson Hospital Emergency Department could improve the care given patients presenting to the ED in mental health crisis?

- Provide an on-site, mental health trained professional
- Provide access to a mental health trained professional
- Provide mental health education for all the staff
- Other – please describe:

4. Do you feel that having the tele-video service in the Emergency Department to assess mental health patients in crisis is a useful service to continue as standard practice in the ED?

- Undecided
- No
- Yes

Why or why not?

5. Please provide any other insights, knowledge, experience, or information that may be important or useful in enhancing the care of the mental health patients in the ED. Your input is very valuable.

Thank you for taking the time to complete the survey.